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ABSTRACT

This report reviews recent literature about the benefits of a higher education. The issues of student benefits, private postgraduate benefits, and social benefits are discussed. In addition, a benefits pryamid model is proposed for ordering priorities in higher education, and in a concluding chapter the need for a more synthesized theoretical approach to outcomes of higher education is considered. An extensive bibliography is included. (MJM)

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Oscar T. Lenning

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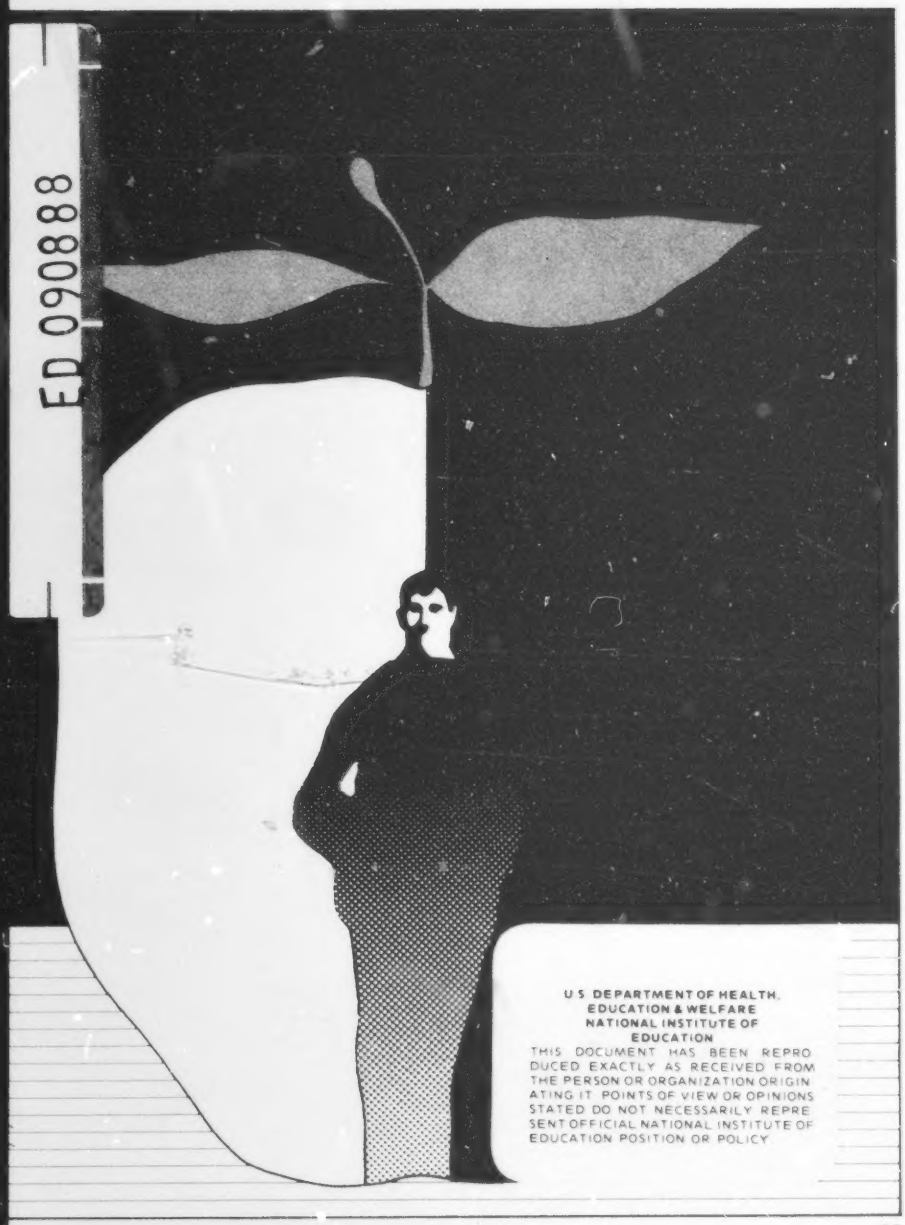

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The "Benefits Crisis" in Higher Education

Oscar T. Lenning

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Foreword

This report reviews recent literature about the benefits of a higher education. The issues of student benefits, private postgraduate benefits, and social benefits are discussed. In addition, a benefits pyramid model is proposed for ordering priorities in higher education, and in a concluding chapter the need for a more synthesized theoretical approach to outcomes of higher education is considered. The author, Oscar T. Lenning, is Assistant Director, Research Services at the American College Testing Program.

Carl J. Lange, Director
ERIC/Higher Education

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What is the "Benefits Crisis?"

During the past several years of demands for equal opportunity, of diverse new student groups becoming prominent in postsecondary education, and of student activism on the college campus, a crisis developed concerning the identification, ordering, and documentation of college benefits. This "benefits crisis" is a large part of the "identity crisis" outlined by Hodgkinson and Bioy (1971), and it will be the focus of this report.

In a recent American Council on Education survey of 63,510 students who spent four years at 252 colleges and universities, it was determined that 69.8 percent of the students felt that "much of what is taught at college is irrelevant to what is going on in the outside world" (Bayer, Royer, Webb 1973). An earlier attrition study by Panos and Astin (1968) of 30,570 students who entered 248 accredited four-year colleges in 1961 provided additional evidence for such a conclusion. Of the 35 percent who permanently dropped out of college four years after entrance, 74.7 percent of them had quit voluntarily. Analysis of the followup questionnaire responses of the dropouts revealed that "dissatisfaction with the college environment" was reported by both men and women more often than any other of ten choices listed as a reason for leaving. A total of 27 percent of all women who quit said dissatisfaction was a major reason while an additional 19.7 percent said it was a secondary reason; for the men the percentages were 26.7 percent and 22.3 percent, respectively.

After the last of these surveys was taken, college students began to experience great difficulty finding jobs. New students as well as parents and the general public now are questioning the benefit of a college education as a result of these job placement problems. Factors such as the campus unrest of the late sixties also contributed to this growing lack of confidence in the benefits of higher education. Public pressure for accountability continues to mount, and colleges are being asked to explain some of the educational goals in their catalogs that they may not have carefully evaluated. Unfortunately, college officials have often been quite unprepared to provide effective documentation in response to such demands.

The post-Sputnik emphasis on societal manpower needs above individual human needs has been changing. Sanford (1970) makes this point:

> I would like to start by distinguishing between loss of talent as a manpower problem and loss of talent as a human problem. The manpower problem, as ordinarily stated, lies in discovering and developing what are sometimes called the human resources necessary for the achievement of more or less agreed [upon] national goals. . . . As a human problem, the question is how do we develop the talents of the individual so that he might fulfill himself and gratify his distinctively human needs . . . Ideally, the two kinds of talent development would go together. If we developed everybody's talents as fully as possible, or as fully as could be justified on the basis of their needs, then the work of society would get done perfectly all right. But, if the two should come into conflict, I would give priority to the humanistic goal (pp. 56-58).

There is a natural connection between goals and purposes of colleges and universities and the diversity of higher education in this country. Many experts in the field of higher education would agree with the contention that the diversity of institutions has been the real strength of our higher education system. Remnants of the various stages of our higher education history still survive in many of our colleges and universities. For example, numerous colleges still exist primarily for religious reasons and there are still some colleges that emphasize an elitist tradition. In addition, some colleges and universities stress research and the extension of knowledge, while others emphasize community and social service and maximizing educational opportunity. Some colleges emphasize general and liberal education, while others believe the two values of "academic excellence" and "humanistic concern for the individual" are two extremes of a continuum and strive for a middle ground. And there are also diverse new experimental institutions and programs that differ from anything previously attempted.

However, a recent Task Force commissioned by the U. S. Department of Health, Education and Welfare (Newman 1971) found strong evidence to convince them that higher education in this country has lost much of this diversity during the period since 1950 and that something needs to be done to reverse this trend:

> American higher education is renowned for its diversity. Yet, in fact, our colleges and universities have become extraordinarily similar. Nearly all 2,500 institutions have adopted the same mode of teaching and learning. Nearly all strive to perform the same generalized educational mission. The traditional sources of differentiation—between public and private, large and small, secular and sectarian, male and female—are disappearing. Even the differences in character of individual institutions are fading. It is no longer true that most students have real choices among differing institutions in which to seek a higher education . . . . Five out of every seven college students are now enrolled in public institutions and that percentage will continue to grow . . . . The uniform

> acceptance of a diverse curriculum is an indicator of a growing similarity of mission: that of providing general academic education . . . . Almost all the institutions have the same general image of what they want themselves—and their students to be . . . . [There is a] confusion of institutional priorities . . . . For every school with the distinctive character of Berkeley, Antioch, Northeastern, or Harvard, there are fifty or a hundred institutions with little to distinguish them, one from the other. . . . If one believes that an important function of the higher education system is to offer alternative models of careers and roles, including those which challenge and change society, then the homogenization of higher education is a serious problem . . . . Can everyone learn best in the internally diverse, comprehensive, all-purpose academic institutions we now have? There is a difference between entering social service and joining the Peace Corps; between entering military service and joining the Marines; between entering upon a religious career and joining the Jesuits. . . . Today there is still considerable flexibility within higher education. We still expect that college means a different experience for different students. But, steadily, the flexibility, differentiation, and individual responsiveness are slipping away. Only a determined effort can reverse this trend (pp. 12-27).

The conclusion reached by the Newman Task Force that U. S. higher education is losing its diversity is supported by two recent studies. Martin (1969) used interviews and surveys of faculty, administrators, and students to study the institutional character of eight distinct higher education institutions. Each school had characteristic features in organization, administration, structure, and function that set it apart from other schools. However, when Martin compared the eight institutions, he noted:

> Given the range in types of institutions and the variety of roles for individuals within them, it would seem likely that value differentiation as a consequence of role differentiation would be a conspicuous feature of college and university life and an integral part of the diversity claimed for the system. However, it is precisely this "obvious" character that was not supported by the findings of the Institutional Character research project. Beneath diverse structure and functions we found uniformity in educational assumptions and sociopolitical values across major interest groups and in various types of institutions . . . . American higher education has been characterized [in this study] by conformity where diversity is needed, that is, at the level of values (pp. 210-211).

The second study was done by Hodgkinson (1971) at the request of the Carnegie Commission on Higher Education. Clark Kerr, chairman of the Commission, stated in the foreword to the report that this was "the most comprehensive study ever made of changes in higher education in the United States." Using data from the U. S. Office of Education directories of higher education, Hodgkinson (1971) developed a "statistical history" of changes in higher education over the

last two decades from which he developed a questionnaire focusing on specific changes that had occurred on each campus. The questionnaire asked each college president to estimate how the changes on his or her campus took place and what the changes meant. After analyzing the returns from 1,230 institutions, five of them were selected as representative of major changes other institutions might encounter in the future. Interview teams were then dispatched to each of the five campuses to gather data. The campuses were (p. 159):

> SUNY at Buffalo—Changed from private to public control with a greatly expanded mission as a state university.
>
> Southern Colorado State College at Pueblo—Changed from a 2-year community college to a 4-year state college.
>
> Oberlin College—A college of very high standards with a commitment to assist members of minority groups to get an education.
>
> Chicago State College—Changed from an urban teachers' college to an urban university.
>
> Northern Illinois University—An institution that went through extremely rapid growth in size and complexity of mission.

One major conclusion, after all the analyses were completed, was identical to that of Martin and the Newman Task Force:

> Taken as a whole, the amount of institutional diversity in American higher education is decreasing. This is due partially to the pervasive existence of a single status system in higher education, based on the prestigious university offering many graduate programs and preoccupied with research. There are few alternative models to this system now functioning (p. xv).

Based on this, it seems clear:

- The needs of many diverse groups of students are not being adequately met in our colleges and universities. Far greater diversity exists among our students than among our approaches to students.
- We need to reevaluate all of the goals and benefits of different institutions and programs and try to reverse the trend toward homogeneity that has marked our system of higher education during the last two decades of greatly increasing diversity among students.
- We need to develop a diverse array of new and unique educational methodologies and programs that will have a significantly positive impact on students of specific types and from varying backgrounds.

If a private college is to survive in an era of spiraling costs, it must give priority to specific, meaningful goals and programs that are not

given paramount consideration in public institutions and other nearby private institutions. In other words, they must become truly unique institutions. Furthermore, they must effectively communicate to their potential clientele, to foundations, and to other agencies that could provide financial aid to them or their students, the special benefits to be gained from their programs. And in this day of accountability, it is imperative that they show factual evidence that their unique programs result, or can result in the benefits claimed.

Although public colleges and universities are not faced with the possibility of extinction, as are many private institutions, their position is becoming quite tenuous in other ways. At a time when costs continue to "skyrocket," higher education finds that it has ever more vigorous competition for quite limited state and federal funds from new and expanding public social agencies that also believe their mission to be indispensable, such as health, welfare, and the environment. Furthermore, elementary and secondary education have been demanding significantly larger funds from state revenue as local property taxes have approached astronomical levels. And with college-bound student populations projected to decrease in size towards the end of the decade, per-student payments from the state will have to increase markedly merely to maintain previous total amounts of state funding for higher education. In such a climate, public colleges and universities must succinctly delineate the benefits they provide and show evidence that such benefits actually occur if they are to obtain anywhere near the funds needed to maintain the quality of their programs in the years ahead.

All public and private colleges and universities in the U. S. need to reevaluate their goals and purposes. As indicated by the Newman Task Force, too often institutions have failed either to order their priorities or to use proper criteria in deciding priorities. Not only has this been a major factor in the move toward homogeneity of institutions during the past two decades but also it has resulted in the identity crises throughout higher education (in individuals, in the university, and in society) that was "struggled with" in a series of seminars funded by the Danforth Foundation and conducted throughout the 1968-69 school year (Hodgkinson, Bloy 1971).

Another consideration is that there will be increasing pressures on colleges and universities to incorporate the management and accounting principles successful in business and industry. A major part of such efforts involves relating costs to outputs, which means that effec-

tive outcome (benefit) delineation, measurement, and evaluation procedures will become necessary for higher education institutions.

This report examines the literature of higher education for some potential answers to the "benefits crisis." The many possible specific college benefits (student, postgraduate, and societal) are considered and criteria are proposed for ordering benefit goals within an institution. Furthermore, recommendations are provided concerning research literature on college effects and directions for future benefits of higher education.

Hypothesized Benefits of Higher Education

A wide variety of supposed benefits of higher education are seen by different people and groups throughout our society. This chapter examines the variety of benefits that have been hypothesized for higher education. First, the possible student benefits of higher education are discussed as evidenced in the literature on higher education, followed by an examination of proposed postgraduate and societal benefits of higher education.

In this age of great social change and diverse student populations, a reevaluation of institutional goals should involve the creation and the examination of possible new goals that no one at the institution has thought about before but that speak to the new realities in our society. Another important activity is the examination of goals that were rejected in the past as being *not relevant* but which may be relevant (in the original or a modified form) today. Also necessary is a reexamination of goals that have always been considered essential, plus the goals listed in college catalogs to which only passing attention may have been given.

Student Benefits

A multitude of specific benefits can be hypothesized for students enrolled in college. Thousands of lists of higher education objectives have been created over the years in course syllabi, in college catalogs, in state master plans, in the publications of professional associations, and others. Although there undoubtedly has been much overlap and redundancy across such lists, the variety of possible goals is immense.

Almost all research on the benefits of higher education focuses on the benefits to students, as opposed to focusing on postgraduate benefits to individuals and benefits to society at different levels (Lenning et al., forthcoming). Various people and organizations have attempted to develop *overall* taxonomies of college outcomes for students, and these taxonomies will be the topic for this section. Some of the taxonomies consist of broad constructs while others are more extensive lists of behavioral objectives, i.e., objectives defined in terms of specific observable changes, behaviors, or impacts.

A logical place to ascertain proposed benefits of higher education would be the reports of recent U. S. Presidential Commissions. However, such reports generally bypass discussion of the nonacademic

benefits of higher education. The commissions apparently considered those benefits to be so self-evident as to require little discussion.

The Newman Committee stressed the importance of institutions focusing on their educational missions and their academic programs in the light of those missions and mentioned two special tasks to which new institutions should devote themselves—professional training and scholarly research; but the commission report itself never really focused on missions when the problems of higher education were discussed. The same perspective on the goals and benefits of higher education was taken by the recent President's Task Force on Higher Education that wrote *Priorities in Higher Education* (Hester 1970). At the beginning of their report, the task force expressed belief that a discussion of college goals was unnecessary because:

> American public and private institutions of higher education constitute collectively a national asset of inestimable and unique importance to the American people. Only through higher education can individuals fulfill many of their basic personal aspirations, and only through higher education can the nation achieve many of its fundamental national goals —intellectual, cultural, scientific, and economic. Among the first priorities for a government concerned with individual and national development must be the preservation and strengthening of this prime national asset (pp. 1-2).

While these committees did not concern themselves with clarifying the purposes either of higher education or of different types of institutions, they did believe that lack of such goal clarification was a contributing factor to problems at the institutional level:

> In recent decades our institutions have been subjected to mounting pressures to grow in size and complexity and to respond to the needs and interests of new groups within and beyond the campus. These new conditions have created much uncertainty about institutional purposes, functions, and priorities in the minds of students, faculty members, administrators, trustees, alumni, and members of the public.
>
> Most colleges and universities today need thorough analyses of their purposes and of each program of study and research and non-academic service the institutions perform. Not all institutions should place the same emphases on teaching, research, and public service. Policy for each institution should be carefully thought out and deliberately implemented in the allocation of resources (pp. 14-15).

There was a Presidential Commission (Zook 1947) that did concern itself specifically with "the task of defining the responsibilities of colleges and universities in American democracy and in international affairs," but that was over twenty-five years ago. Student benefits of higher education mentioned by the committee were (pp. 5-89):

- A fuller realization of the meaning of democracy in every phase of living, and an allegiance to democracy.
- A knowledge of and concern for international understanding and cooperation, i.e., "international-mindedness."
- Development of creative imagination and trained intelligence.
- Development of a full, rounded person.
- Discovery, training, and utilization of individual talents.
- Liberation and perfection of intrinsic powers; the furtherance of individual self-realization.
- Developing strength of character, firmness of conviction, integrity of purpose.
- Development of knowledge, understanding and discriminating judgment.
- Development of freedom of thought and conscience in action.
- Development of free men who will not only insist on rights and liberties but willingly assume the corresponding responsibilities and obligations.
- Development of self-understanding, self-discipline, and self-reliance
- Development of ethical principles as a guide for conduct in one's personal and civic life.
- Development of sensitivity to injustice and inequality.
- Development of insight into human motives and aspirations.
- Development of discriminating appreciations of a wide range of human values, both spiritual and material.
- Development of a spirit of democratic good will, tolerance, compromise and cooperation.
- Development of a desire to use the benefits of education for public and social service rather than primarily for personal and private profit, i.e., the development of high social aims.
- Endowment of students with specialized information and technical skills.
- Development of human relations, social sensitivity, social versatility, and the ability to deal with people in a friendly and considerate manner.
- Development of an active appreciation of different cultures and other peoples, and the admission of possible worth of human values and ways of living we ourselves do not expect.
- Development of reason, logic, and a practical orientation.
- Development of a realization of the rich advantages of cultural diversity.

- Development of a sincere desire for peace.
- Development of leadership.
- Development of additional nonintellectual, nonverbal aptitudes such as artistic ability, motor skill and dexterity, and mechanical aptitude and ingenuity.
- Development of a recognition of the interdependence of the different peoples of the world and one's personal responsibility for fostering international understanding and peace.
- To understand the common phenomena in one's physical environment, to apply habits of scientific thought to both personal and civic problems, and to appreciate the implications of scientific discoveries for human welfare.
- To understand the ideas of others and to express one's own effectively.
- To attain a satisfactory emotional and social adjustment.
- To maintain and improve one's own health and to cooperate actively and intelligently in solving community health problems.
- To understand and enjoy literature, art, music and other cultural activities as expressions of personal and social experience, and to participate to some extent in some form of creative activity.
- To acquire the knowledge and attitudes basic to a satisfying family life.
- To choose a socially useful and personally satisfying vocation that will permit one to use and to fulfill his particular interests and abilities.
- To acquire and use the skills and habits involved in critical and constructive thinking.
- Development of those traits of character and personality that are required for success in any occupation.
- Keeping intellectual curiosity alive and stimulating a zest for learning.
- Training in specialized, marketable skills at the semiprofessional level.
- Training research workers, consultants, teachers, doctors, and other professionals.

As has been true of later Presidential Commissions on Higher Education, the final report of President Eisenhower's Committee on Education Beyond the High School (Josephs 1957) did not focus on the objectives of higher education; however, the American Council on Education (ACE) (Dobbins 1956) submitted a report to the Eisenhower Committee on this topic. Most of what ACE proposed had been cov-

ered by the 1947 Commission report, but they did add the following objective:

> Students must be inspired to continue their educational development to ensure the fullest satisfaction for themselves and their greatest potential service for the nation (p. 3).

About the same time the Educational Policies Commission of the National Education Association (NEA) also published a report that dealt with the objectives of higher education (Wells 1957). This commission formulated some goals that overlap yet in some ways are unique from those goals already mentioned:

- To help all students to realize the dream of individual opportunity.
- To draw out the latent talent of youth.
- To provide relevant opportunities for able youth to mature intellectually, aesthetically, socially, vocationally, and morally.
- To develop capabilities to contribute immeasurably to their own lives and the national welfare.
- To help students to acquire knowledge pertinent to a wide range of career interests.
- To develop a deeper understanding of human experiences.
- To communicate knowledge of and an appreciation of our heritage of beauty in all its forms.
- To develop feelings of responsibility and desires for the preservation and enrichment of our cultural heritage.
- To promote the concept of the "well-rounded man" and "intelligence-in-action."

An early study that developed a comprehensive list of specific goals for students was begun in 1943 and explored the goals of all four-year colleges and universities holding membership in the Northwest Association of Secondary and Higher Schools (Clapp 1946). A number of specific benefits were listed for each of the following nine areas: intellectual attainments, health, personality adjustment, general ethical character, Christian character, aesthetic interests, citizenship responsibilities, vocational and professional preparation, and preparation for home membership. It was found that the objectives considered most important were for developing intellectual characteristics and developing ethical character, rather than for knowledge in subject-matter fields. In addition, all specific objectives were considered of less importance than the general objectives of which they were a part.

Many of the student benefits listed in the Clapp study (1946, pp.

10-34) are much more specific than those stated by the commissions and have been reproduced in Appendix A. Some of the items are definitely outdated, and certain terms no longer mean what they apparently did in the 1940s (e.g., Clapp's "personality adjustment" appears to be mainly what today we would call "social development"). Furthermore, society has changed so much since 1943 that certainly there are new specific goals for students that should apply today. And much more recent studies of college outcome objectives have been conducted. Yet none of the more recent studies has developed or utilized nearly as specific institutional objectives as did the Clapp study. To measure outcomes—measurements that are needed for accountability to occur and for management information systems to be applicable—college objectives must be made more specific and behavior oriented. Of all the studies reviewed, the Clapp study comes the closest to meeting such a criterion.

Another famous classification of educational benefit goals did *not* focus strictly on higher education. The authors felt that their classes of objectives were applicable to elementary and secondary as well as higher education. This classification of cognitive and affective goals was formulated through a committee structure, and the authors (Bloom 1956; Krathwohl, Bloom and Masia 1964) referred to it as a "taxonomy of educational objectives." They believed that evaluators could readily formulate behavioral objectives applicable to any of the areas and customized to the local situation (see Appendix B for their taxonomy).

Probably the most well-known study of college and university goals is the survey conducted in 1964 by Gross and Grambsch of 68 PhD-granting institutions.[1] A list of 47 goals they felt would apply to universities was sent to 4,494 administrators and 2,730 faculty at the 68 institutions. They were asked to reply as to the emphasis they felt each goal was *actually* given at their university, and the emphasis they felt *should be* given to each goal. The 19 student outcome (benefit) goals are listed in Appendic C along with how each ranked out of the total 47 goals (1=high, 47= low). Many of the goals not listed were management and institutional status oriented, and emphasized "mean" rather than "end" results (Gross, Grambsch 1968, pp. 13-16, 28, 29).

After studying the results, the authors concluded that:

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[1] As reported by Uhl (1971, p. 5), it was announced in the February 1, 1971, issue of *The Chronicle of Higher Education* that the Ford Foundation was providing funds for Gross and Grambsch to do an updated study of university goals.

> Students as a group were not felt to be particularly important when respondents were asked about the actual goals of the universities, nor is there evidence of any strong feeling that this state of affairs is unfortunate, except in the case of cultivating the student's intellect and developing his objectivity, both of which, according to our respondents, would receive more emphasis. The perceived and the preferred student-oriented goals which rank at the top relate to the intellective/academic capacities and development of the student; the Renaissance concept of cultivating the whole man is apparently no longer esteemed as an ideal. The findings suggest that preparing students for useful careers or for high status and leadership and developing their citizenship abilities, consumer tastes, characters, or overall potential (well-roundedness) are not—and should not be emphasized [p. 33].

An additional finding was that administrators and faculty generally ranked the goals in the same order of priority. In addition, the authors did *not* find any relationship between institutional size and the way the goals were ranked. The same was true of location, except that persons at rural universities and metropolitan universities had somewhat different goal preferences.

Several later studies have used slightly modified versions of the Gross-Grambsch questionnaire at other types of colleges or with additional institutional groups of respondents. The Danforth Foundation (1969) surveyed administrators, faculty, and students at 14 small private liberal arts colleges with limited resources. They found that much more emphasis was placed on teaching and student-oriented activities at the private colleges, while much less emphasis was placed on research-related activities than had been true in Gross and Grambsch's sample. All three groups generally agreed about the ranking of goals, and there were marked differences between perceived and preferred rankings for all three groups (as had been the case at universities).

Swarr (1972) gave the Gross and Grambsch questionnaire to faculty and administrators at four New York State public colleges. He focused on mean scores rather than ranks. When he compared his results with those of the two earlier studies, he discovered that state-college goal perceptions were similar to those for the private colleges in the Danforth study. Swarr also found that administrators were perceived to have the most power over setting and achieving goals and were more satisfied with the actual goal emphases than were the faculty.

Stead (1971) gave a slightly modified form of the Gross and Grambsch questionnaire to five different groups at Michigan State University: undergraduate students, graduate students, faculty, administrators, and trustees. Findings were as follows: the trustees rated

all goals as being more important than did the other four groups; a general relationship was found between an individual's hierarchical position in the university organization and his attitudes about its goals; "means" as well as "ends" goals were important to all groups; all groups felt that goals should be given greater emphasis than what was perceived to be the actual current emphasis; of the 13 goals on the questionnaire related to the expected qualities of Michigan State graduates, six of them tended to be in the top third for all groups, five in the middle third, and two in the lower third; there was considerable agreement concerning which goals the university should emphasize the most.

In December of 1967, Nash (1968) sent a goals questionnaire to administrators (usually the academic dean) at all 2,444 accredited and unaccredited two- and four-year colleges and universities. For each of 64 goals derived from college catalogs and reports of college presidents, each respondent was asked to react as follows: we emphasize strongly; we emphasize moderately; mixed feelings among administrators; we do not emphasize but favor it as a goal; we do not emphasize and are against it as a goal; do not know. Each respondent was also asked to rank the three goals emphasized most by the administration at his institution. The following goals were among those most frequently emphasized:

- To provide a basic liberal education and appreciation of ideas (ranked 3rd and "emphasized strongly" by 75 percent of the colleges).
- To induce students to develop all of their human potential—intellectual, emotional, social, esthetic, and moral (ranked 4th and "emphasized strongly" by 75 percent of the colleges).
- To develop moral capacities, ethical standards, and values (ranked 7th and "emphasized strongly" by 62 percent of the colleges).
- To provide professional training, teaching skills, and other techniques directly applicable to a career (ranked 11th and "emphasized strongly" by 55 percent of the colleges).

When the institutions were split into ten college types, the first two goals listed above were "strongly emphasized" by two-thirds or more of the respondents at nine of the ten college types.

A factor analysis of the goal responses was also conducted and five factors emerged: Factor 1—Orientation toward research and instruction (colleges that had a large undergraduate student body and that were selective or were affluent had higher scores on this factor); Factor 2—Orientation toward instrumental training (public 2-year colleges, unaccredited 2-year colleges, larger colleges, colleges with low

income per student, and colleges with larger numbers of students per faculty member had higher scores on this factor); Factor 3—Orientation toward social development of students (women's colleges, private colleges, smaller colleges, and colleges with fewer students per faculty member had higher scores on this factor); Factor 4—Democratic orientation (women's colleges and public institutions had higher scores on this factor); Factor 5—Orientation toward development of resources (public colleges and universities, colleges with large undergraduate student bodies, less selective colleges, colleges with lower numbers of books per student, colleges with lower income per student, and colleges with larger numbers of students per faculty member had higher scores on this factor).

A much more complicated type of analysis was conducted by Pace and Baird (1966) at nine colleges of three different basic types. They related 11 different college attainments (benefits) as perceived by the students to different campus curricular environments (student peer perceptions measured by the *College Characteristics Index*) and to student personality characteristics (as measured by the Allport-Vernon-Lindzey *Study of Values*, the Heston *Personal Adjustment Inventory*, sections of the *California Psychological Inventory*, and the Stern *Activities Index*). It was found that the environmental measures were more related to perceived attainment than were the measured personality characteristics. Pace and Baird also discovered that the impact of a subculture on perceived attainment depended more on the college in which it was located than on its presumed similarity to other subcultures of its kind. The relationship found between environmental categories and perceived benefits is shown below (Pace and Baird 1966, p. 223):

Environmental Press	*Objectives Relevant to the Press Characteristics*
Intellectual, humanistic, aesthetic	Acquiring a broad cultural and literary education
	Understanding different philosophies and ways of life
	Developing an enjoyment and appreciation of art, music, and literature
Group welfare	Social development, getting along with others
	Effective citizenship
Scientific, independent	Specialization for further professional, scientific, or scholarly work
	Critical thinking
	Understanding science and technology
Practical, status-oriented	Vocational training

E. Learn to act (e.g., do, create, communicate)
F. Learn to learn

II. Specialized Man Growth
G. Choose a career
H. Gain admission to next stage in career development (e.g., medical school)
I. Develop skills needed to fulfill career, earn a living for self and family, and to help fill society's manpower needs.

The following quote from Lenning, Munday, and Maxey (1969) introduces several additional criteria of college student benefits:

> Few people would quarrel with the notion that, among other objectives, students should demonstrate a greater knowledge of subject matter, more skill in use of language, and increased reading ability—to read with comprehension, to apply their readings to new situations, and to recognize writers' styles and biases. Further, they should be able to analyze and solve problems, to make inferences, and to think critically (p. 145).

Wright (1971), Yamamoto (1970), Sanford (1967), and Jahoda (1958) would emphasize positive mental health and its many components as a potential college benefit. Heath (1965, 1968) would emphasize growth in maturity and its many components, while Madison (1969) and Brawer (1973) would emphasize personality and its wide array of components. Similarly, Hutchins (1936) would emphasize the "higher learning"; Morris and Small (1971) the "good life"; Stupak (1971) "love" and "the agonies of the soul that learning will bring"; Albrecht, DeFleur, and Warner (1972) attitudes; Martin (1971) values; Lass and Wilson (1971) learning to use freedom wisely; Sanford (1970) freeing students from authoritarianism; Maslow (1968) self-actualization; Travelstead (1970) honesty and forthrightness, dedication to a cause in behalf of others, and skills of the artisan or craftsman; Withey (1971b) life-styles; Heath (1964) adventurousness; Melnick (1971) remediation; Banks (1970) black consciousness; Merideth and Merideth (1971) women's liberation.

There are other possible sources of expected benefits to which reference can be made. Many state commissions on higher education have published state plans for higher education that list goals and expected benefits, while some colleges have prepared official reports outlining noteworthy goals for their institutions, e.g., Oberlin College (1971). Another possible source of expected benefits (one that gives detailed breakdowns of goals) is the National Assessment Program (e.g., Committee on Assessing the Progress of Education 1969; National Assessment of Educational Progress 1971). Still another source

consists of publications of the professional associations. For example, the following quote is from a statement on the goals of engineering education published by the American Society for Engineering Education (Walker 1968):

> Additional support for the viewpoint that there is an important need for breadth in the education of future engineers is found in the opinions of practicing engineers surveyed. When questioned, about one-half of the engineering graduates indicated that their undergraduate experience did not provide enough liberal or general education. A similar view was noted in the comments of engineering managers and personnel representatives. . . . Therefore, it is recommended that (a) the engineering student should be sufficiently exposed to the new facts and theories offered by the social sciences to help him understand the large social problems of his time; (b) he should be persuaded in college to set a course of life-long study in this area; (c) he should be impressed with the importance of his role in the ultimate solution of these problems; (d) he should understand and appreciate the vital mutual influences which have been operating since the industrial revolution between technology on the one side and the more slowly changing institutions of society on the other; (e) the youthful idealist should be persuaded that engineering offers him a field of opportunity for the exercise of his enthusiasms and fulfillment of his highest goals for humanity . . . [and a comprehensive nationwide] study might reveal that the problem of providing adequate work in humanities and social science is not peculiar to engineering, that it arises wherever a student is preparing to become an expert in a specialized field (p. 11).

There is an additional taxonomy that was developed in a different manner than the others reviewed and provides a summary for this section. Lenning and associates (forthcoming) spent five years searching the literature for studies that explored the relationships of nonintellective factors to various types of college benefits. One of the noteworthy results of the project was the development of a criterion classification system with broad categories and subcategories of success as defined by various publics. For each criterion area specified, a number of research studies relating the criteria to other variables were found. Some of these studies attempted to predict the criterion while others were concerned only with trying to provide insights and to broaden the level of understanding of the criterion. The taxonomy resulting from the project is shown below.

Student Benefits Taxonomy Extracted from
The Many Faces of College Success and Their Nonintellective Correlates: The Published Literature

I. Academic Benefits
   A. Grades
   B. Persistence
   C. Academic Learning

II. Benefits Viewed as Intellectual Development
   A. Development of an Intellectual Outlook and Attitudes
   B. Development of Cognitive Creativity, Originality, Abstract Thinking, and Analytic Skills

III. Benefits Viewed as Personality Development and Adjustment
   A. Development of Maturity, Responsibility, Autonomy, Flexibility, and other Personality Change
   B. Development of Optimal Psychological and Physical Health
   C. Development of Self-Confidence, Self-Acceptance, and an Appropriate Self-Concept
   D. Adjustment to and Satisfaction with the Collegiate Environment

IV. Benefits Viewed as Motivational and Aspirational Development
   A. Development of Self-Appraisal Habits, Realism, and Appropriate Aspirations
   B. Development of Motivation to Succeed
   C. Vocational Development

V. Benefits Viewed as Social Development
   A. Development of Social Awareness, Popularity, Social Skills, and Interpersonal Relationships
   B. Development of Leadership Skills
   C. Development of a Respect for Others and Their Views
   D. Participation and/or Recognition in Extracurricular Activities

VI. Benefits Viewed as Aesthetic Cultural Development
   A. Development of Aesthetic and Cultural Interests, Appreciations, and Feelings
   B. Development of Aesthetic Creativity and Artistic Skills

VII. Benefits Viewed as Moral, Philosophical, and Religious Development
   A. Development of Altruism, Humanism, Citizenship, and Moral Character
   B. Development of Attitudes, Values, Beliefs, and a Particular Philosophy of Life

VIII. Other Types of Student Benefits
   A. Development in Basic Educational Skills
   B. Development of Student Power
   C. Miscellaneous Criteria

Private Postgraduate Benefits

As one would expect, students primarily attend college because of postgraduate benefits they want to receive. As an illustration of this, Baird (1967) tabulated data for a national sample of 18,378 college-bound high school seniors who had chosen their most important goal in attending college from a list of 10 goals. The list contained the following goals: to learn how to enjoy life; to develop my mind and intellectual abilities; to secure vocational or professional training; to make a desirable marriage; to earn a higher income; to develop moral standards; to become a cultured person; to develop my personality; to develop a satisfying philosophy; and none of these. The top three

goals were "to secure vocational or professional training" (51 percent), "to develop my mind and intellectual abilities" (34 percent), and "to earn a higher income" (7 percent). Furthermore, it was probably the case that "developing the mind and intellectual abilities" also was aimed at postgraduate concerns.

The American Council on Education study referred to earlier suggests that emphasis on postgraduate benefits persists through college for most students. Not only did over two-thirds of the seniors surveyed report that "much of what is taught at college is irrelevant to what is going on in the outside world" but also 37 percent of them agreed with the statement that "the chief benefit of a college education is that it increases one's earning power." Numerous studies have found that most Americans think of a college education in terms of job training and the income it makes possible (Sugarman 1969).

In spite of the fact that views of college seem to have changed somewhat over the past few years, the following statement about faith in postgraduate benefits of college, made over 20 years ago by Havemann and West (1952), probably still applies to a majority of our population:

> Yet most of us, despite statistics which seem to be a prima facie vote of confidence, view our colleges with extremely mixed emotions. Many adults believe that girls go to college simply to find husbands. On the other hand they will argue all summer with a daughter desirous of marrying the neighbor boy, who is established as a first lieutenant in the Air Force, rather than "completing her education." Many fathers are absolutely convinced that boys learn nothing in college but how to paddle the younger fellows in the fraternity, play football and basketball, and write home for more money. Yet if a male off-spring shows inclinations to go direct from high school to a job, these same fathers exhibit a distress which is a pitiful thing to watch. Parents who have never been to college ordinarily send their children with half a hope that it will be the key to a new and better world, but with half a fear that it will merely turn them into social butterflies. Parents who have been through it themselves sometimes send their children in the earnest conviction that it is their greatest hope for a happy, useful, and prosperous life. But often they merely feel that, since they themselves lived through it without permanent damage, the children can probably do the same (p. 4).

Almost all of the hypothesized student-oriented benefits in the previous section could also be considered postgraduate benefits. The goal would be that such effects either would persist through the years following graduation (Freedman 1962, 1967; Nelson 1954; Newcomb et al., 1967) or that the effects while in college would stimulate even more change in the years following college (Bender 1958; Freedman

and Bereiter 1963; Nelson 1956). This is perhaps the reason that specific postgraduate benefits were not listed by the Presidential Commissions, by Clapp (1946), or by Gross and Grambsch (1968), etc., even though only a very few of the student benefits alluded to postgraduate benefits. One exception, the NEA Educational Policies Commission (Wells 1957), did specifically mention "increased stature after graduation."

A number of studies have explored the effect of college on income. However, few alumni studies of other types were noted in the literature. Colleges and universities should heed the following statement made by Freedman (1962):

> In the long run the best evaluation of the meaning of a college education is likely to result from studies of alumni. What are college graduates like—five, ten, twenty, and thirty years after graduation? How have they been influenced by college experiences? How do college graduates differ from high school graduates? How do they differ from individuals who have had a year or two of college? What differences exist among graduates of various kinds of colleges, for example, private vs. public, denominational vs. nonsectarian, large vs. small, coeducational vs. schools of one sex? Knowledge of such matters would, of course, be of great value in understanding what colleges do to and for students and in formulating educational goals and procedures (p. 847).

With society changing as rapidly as it is, flexibility is an especially important postgraduate goal for higher education in this country. As Walizer and Herriott (1971) reported in their paper on student competence in a learning society (rather than a performance society), "an individual can no longer be certain that roles, particularly occupational roles, he initially prepares for will adequately see him through his life-cycle" (p. 1). In fact, the chances are good that new roles requiring new coping strategies will continually be required, whether the person is a college graduate or not. And the person will need to be functioning in a number of different roles concurrently, e.g., on the job, in the home, at the club, in the church, etc. The college environment for a young person just out of high school provides a miniature, but distorted, low-risk model of the world he or she will have to face after graduation. Thus, all of the benefits of college that pertain to success in that environment also apply to the postgraduate world, only more so and in different relationships. The truly important consequences to the student of the changes brought about by the college do not occur until after graduation.

Axelrod et al. (1969) pointed out an additional reason why adaptability is so important for the college graduate. The postgraduate

world is such an impersonal world, and it has "an awesome potential for either Utopia or disaster" (p. 11). Into such a world the graduate enters, and he must somehow retain and assert his individuality.

What are some of the postgraduate benefits, dependent on a combination of the student benefits outlined in the preceding section, that are distinctively limited to the postgraduate period of a student's life? We have already mentioned several:

- A desirable marriage
- Higher income
- Status and stature, which imply both power and prestige.

Additional benefits to individuals that are uniquely postgraduate in nature are:

- Getting a good job. Tollett (1970), for example, spoke of higher education as "a form of industrial apprenticeship."
- Job success and security
- Job satisfaction
- Being an authority in one's field
- Being effective in raising a family
- Having a satisfying home life
- Making wise use of adult avocational opportunities in this age of increasing time for leisure
- Being known as an effective and respected citizen and leader in society
- Happiness and satisfaction during retirement years.

There are probably other such benefits that have come to the reader's mind, and many more uniquely postgraduate benefits for individuals probably have been proposed in the thousands of commencement addresses given across the country over the years. For example, when Logan Wilson wanted to have a "Higher Education's Varied Objectives" section in a recent new book (1972), he included several commencement addresses he had made that discussed such things as "education for adversity" and "education for adequacy."

It must be kept in mind that a major benefit of higher education at one level may be the access it provides to another level. For example, students who could not gain entry to a four-year college or university can gain this access through graduation from the arts and sciences program of a two-year community college. Similarly, a student's entrance to many of the top graduate and professional schools as well as whether or not he will receive a scholarship or fellowship are dependent on his completion of and success in his undergraduate program.

One other point should be mentioned. "Private postgraduate benefits," as distinguished from "social benefits," includes more than just individuals. As discussed by Balderson (1970), it includes group benefits that also contribute to the social benefits of higher education, such as:

- Private benefits of higher education accruing to business firms and other private organizations
- Private benefits of higher education accruing to the immediate family of the alumnus.

The relationship of such nonindividual benefits to student benefits has received even less research attention than has the relationship of individual postgraduate benefits to the benefits experienced as students.

Social Benefits

Just as little research has dealt with the private postgraduate benefits of higher education, with the exception of the financial return to the individual, the same can be said for the supposed social benefits of higher education. Most studies that examined the financial benefits to the individual also explored the effect of higher education on the long-term national economy, i.e., on the gross national product and per capita income. Such an index is often equated with society's standard of living. One reason for this research emphasis is that such a benefit is easily quantifiable in terms of dollars while other supposed benefits have elusive characteristics difficult to measure and quantify. Another reason is that "standard of living" is an especially basic concern of human beings.

In the past, there has been almost a universal feeling that society benefits in many ways from higher education. Yet during the last decade, when students started to "come to college with the intent of learning how to make life good to live 'rather than' how to live the good life," (McGehee 1969), questions were asked about the real social benefits of higher education. One of the reasons, in addition to the increasing outcry for accountability in a time of increasing costs and inflation, is a controversy that became prominent concerning the relative benefits to society and to the individual (Orwig 1971; Balderson 1970; Bowen 1972). The controversy is outlined by Orwig:

> Public support of higher education is frequently discussed in terms of the private benefits that accrue to the individual and the public benefits that accrue to the larger society. Typically, those who are impressed with the private benefits are interested in a public subsidy only as a last resort and then only in the form of aid to students. On the other hand, those who find the public or social benefits of greater importance advocate

> public support of higher education . . . . When, however, the goal of equal educational opportunity is acknowledged as legitimate and desirable, the decision-making models are rendered more complex and the conclusions concerning financial support become less clear. Segal has concisely characterized the resulting issue as "equity versus efficiency (1969)," and Becker distinguishes between the "egalitarian" and "elitist" views of human capital formation (1967). On the one hand, it is possible to locus on the availability of the opportunity for higher education for different parts of society or, on the other, to be concerned with the return on investment in education as an indication of the capacity of different individuals to benefit from higher education.
>
> Because the weight of quantifiable evidence clearly documents the high rate of return to individuals who invest in higher education, it is common to find economists focusing on the capacity of individuals to benefit from education . . . . Becker (1964) determined that investment in a college education yielded an average annual rate of return of 13 percent. From this finding it is argued that higher education should be provided to those who are willing to pay the full cost of obtaining it. Because public subsidization results in below-cost pricing, it upsets the market mechanisms that result in an efficient allocation of resources and is therefore considered undesirable. Friedman (1968), for example, maintains that "it is eminently desirable that every youngster, regardless of his parent's income, social position, residence, or race, have the opportunity to get higher schooling—provided he is willing to pay for it currently or out of the higher income the schooling will enable him to earn . . . . But the high rate of return to higher education may also indicate underinvestment in this activity (pp. 332-333).

Economists, by the nature of their profession, must give primary emphasis to pecuniary or nonpecuniary benefits, the latter to be estimated in monetary terms; however, there are many nonpecuniary benefits in our society that cannot be estimated in monetary terms. Solmon (1973) provides a more moderate view and Chambers (1968) expresses the other side of the issue:

> Besides the costs and benefits accruing to the particular people being educated, there are costs and benefits of education which accrue to society as a whole. In other words, when an individual obtains schooling, the rest of society might reap some benefits and might incur some costs as well. Some of these benefits are shared, i.e., they accrue both to the person being educated and to others in society. Others accrue more to society and less directly to the individual. It is traditionally alleged that the more-educated society is a better functioning democracy. This allegation might provide only slight concrete benefit to one individual who has been educated. On the other hand, it has been argued that education, particularly of females who later become mothers, provides benefits to subsequent generations of children. There is evidence that children of more-educated mothers become ultimately more successful than children of less-educated mothers, controlling for a large number of other factors. In a sense, this is a social return because the benefit is accruing to one other than the person being educated. Furthermore, the mother certainly gets some benefit out of both training the child and observing later success (Solmon 1973, 1-2).

> People are moved to pay for schooling chiefly by selfish reasons—to get entry into a "prestige profession" or business where they may profit from the wants and misfortunes of others; to be able to outwit their less fortunate fellows in the social and economic competitions of life. As for women, they go to college primarily to find a husband well-placed financially and socially. Then there are others, men and women, to whom college is a "four-year loaf" in a country-club atmosphere—a pleasant way to waste time while gaining maturity . . . . To a limited extent, education beyond the high school serves all the purposes just mentioned; but all these occupy only a small fraction of the total view. The individual may benefit from higher education . . . but his private gains are far outweighed by the gains that concurrently accrue to the whole society . . . through (in the ringing words of Daniel Coit Gilman) "less bigotry in the Temple, less suffering in the hospital, less fraud in business, less folly in politics." This is the basic argument for free tax-supported public higher education. Its benefits extend to every citizen . . . hence its costs shoud be equitably apportioned to all by means of a tax system adjusted to public obligation—not a private privilege or a private caprice . . . [and] it is too important to the public to be left in any large measure to the vagaries of an unregulated private pricing system . . . . How the public weal may be damaged by the ascending of the older private-privilege view is often well illustrated by noting that many a student's ethics may be distorted and even his choice of career unfavorably influenced by his knowledge that his education is being obtained at great expense to himself or his family—perhaps that he will be saddled with a debt upon graduation (Chambers 1968, pp. 90-91).

Certainly most of the postgraduate benefits to individuals and to private groups, such as the family or business organizations, become or result in societal or public benefits when considered in the aggregate. And of course all of the private postgraduate benefits extend from the enrolled student benefits. Howard Bowen (1971, pp. 168-170) lists some other social benefits that are worth noting:

> It is perhaps immodest for one who is a product of the higher educational system to extol the virtues of his own group. However, at a time when the social benefits from higher education are being doubted or denied, it seems necessary to spell out these benefits. There is no intention of claiming perfection for college-educated people. They are human. Some are narrow, some selfish, some ignorant, some dishonest, some immoral. Moreover, some of their alleged good works are undertaken for selfish reasons or for personal gratification. Nevertheless, it cannot be denied that as a group they contribute to society enormously in ways that do not result in personal compensation.
>
> I. *Social benefits from instruction*
>
> 1. Improving the allocation of labor by helping students to find careers that match their aptitudes and interests—the sorting function.
> 2. Improving citizenship. Educated people are better informed, more conscientious, and more active than uneducated people.
> 3. Reducing crime. Crime rates among the educated are low.
> 4. Providing volunteer social, political, civic, and intellectual leader-

of the artistic activity of the society occurs on campuses or radiates out from them.

V. *Social benefits from the Community College*
The Community College is often thought of as strictly an instructional center having no function but to educate and train young people. As such it has important social benefits. But it too provides—or should provide—benefits that flow from its position as a center of learning. It is a cultural center for its community, it is a patron of the arts, a center of discussion, a place for individual consultation and guidance, a humane influence, and a pool of talent to help with community problems. A community college is of great value to a community aside from the credit hours of instruction it generates.

Some additional social benefits (many of which are implied by the above) have been cited by others, and these are listed below:

- International service, understanding, cooperation (Eisenhower 1962; Henderson 1968; Schiver 1967)
- Agents of evaluation, criticism, and social change (Cheek 1969; Haug and Sussman 1971; Kenniston 1968; Minter and Thompson 1968)
- Preservation and enrichment of our cultural heritages and values (Greeley 1969; Gross and Grambsch 1968; Wells 1957)
- Providing solutions for the nation's problems and the problems of mankind (Wells 1957; Paulsen 1970; Uhl 1971)
- Trained intelligence and moral character for our nation (Dobbins 1956; Henderson 1968)
- "College keeps kids off the streets in an age where we do not have enough useful work but have not admitted the fact" (Langdon 1969, p. ix)
- Create and carry out design for new society, e.g., model cities program (Brown 1970)
- Provide benefits, both psychic and real, to the surrounding community and its citizens (Brown 1970; Fink and Cooke 1971; Knowles 1971; Gross and Grambsch 1968; Sundberg 1970; Wilson 1972)
- Showing what is wrong with our society (Wolfe 1971; Uhl 1971)
- Changing the distribution of power and wealth in America (Wolfe 1971)
- Developing community responsibility (Morgan 1960)
- Refining the values by which people live, exploring the various value systems for common ground, and sythesizing from all cultures (Blanshard 1960; Henderson 1968; Uhl 1971)
- "Enable us to make use of technology, control it, and give it

direction, cause it to serve values we have chosen" (Reich 1970, p. 358)

- Encouraging the economic advancement of the nation (Becker 1964; Henderson 1968)
- Contributing to the future health, level of culture, and general welfare of people (Henderson 1968)
- Preparing individuals for civil and social-awareness and participation *at all levels of society* (Henderson 1968)
- To assist in efforts to achieve and maintain world peace (Uhl 1971)
- To provide new generations of scholars, scientists, and other professional workers (Uhl 1971)
- To help students learn how to change society (Uhl 1971).

Proposed Criteria for Determining Relative Benefits

Setting priorities is important for any kind of decisionmaking. If the decisions are to be effective and useful, they must be based on valid, straightforward criteria for determining what is most important. Higher education is no exception to this rule, but past efforts to order priorities in higher education have too often ignored it.

Before a proper attempt can be made to set priorities—whether it be for higher education at the national level, at the local college level, or at the individual student level—the possible alternative goals from which one wishes to choose must be listed. The previous chapters covered a large number of goals meant to stimulate the thinking of college officials (and others concerned with colleges and their purposes) concerning the possible college benefits from which an institution can choose. The problem remaining is to decide on valid, straightforward criteria for ordering such goals on a local institutional level. In this chapter, five such criteria are delineated and discussed, and they also appear to be applicable at state, regional, and national decisionmaking levels:

1. When deciding between two potential benefits, priority should be given to benefits at the higher level in the "benefits pyramid" or to benefits that most affect the higher levels.

2. Priority should be given to benefits for which there is documentary evidence such outcomes occurred or are occurring at particular institutions or in particular programs.

3. Priority should be given to benefits for which there is documentary evidence the benefit could occur or be maximized if new programs or methods were instituted.

4. Priority should be given to benefits that make the institution appropriately unique or that lend themselves to suitably unique methodologies and programs.

5. The most important benefits should be submitted to expert opinion, logic, and the expressed needs and wants of concerned publics who have a vested interest. The proposed benefits that receive a consensus among these groups should be given priority.

Priorities in higher education usually are decided by the last criterion; however, the other four criteria should be considered first. It

may be that public consensus is so great concerning a particular need that it completely overrides the first four criteria. This makes consideration of the first four criteria even more necessary. If this is so, policymakers could say, "although the present consensus is that bringing about such benefits will be too costly or break up too many traditions, at least we know for the future that this goal can meet unique needs important to our constituents and that instituting certain changes could bring the goal to fruition." Or they might be able to say, "there is absolutely no current evidence that higher education has or ever could produce such a benefit, but the need expressed by our publics is so great that we must try to bring it about." Communication of such opinions could result in consensus being changed at a later date.

The "Benefits Pyramid" Criterion

As discussed earlier, the tentative benefits of higher education naturally fall into three categories: student benefits, private postgraduate benefits, and societal benefits. They are listed in the order of quantity of research performed in each area; however, the order would be reversed if they were listed according to level of importance as seen by our society. Furthermore, many societal benefits greatly depend on the aggregate of postgraduate benefits, which, in turn, are dependent on the benefit to these same persons when they were students. Therefore, particular upper-level benefits could not occur if related lower-level benefits failed to materialize. The relationship among these three types of benefits can be visualized as a pyramid composed of three levels, with the societal benefits level at the peak, the postgraduate benefits in the center, and the student benefits level forming the base.

The societal benefits level is at the apex, but it is undergirded and held up by the postgraduate benefits level, and the student benefits level forms the foundation for the whole pyramid. Even such societal benefits as social research, inventions, and the development of new knowledge depend on the lower levels because the scientist and the researchers were probably trained in the university.

Some potential benefits are located at more than one level. For example, if intellectual curiosity is increased at the student level, it plus other college student benefits might result in intellectual curiosity increasing even more at the postgraduate level. Of course if this is prevalent among college alumni, it could further result in a variety of benefits for society as a whole. Most of the student benefits will

be limited to the base of the triangle, but there are many possible effects such benefits could have on postgraduate success that are passed upward to benefit society.

Most student-level effects on the societal apex happen indirectly by way of the postgraduate level, but occasionally the effects are direct. Therefore, to make the analogy of the pyramid complete, there would have to be connectors extending out from the base of the pyramid to its apex. Changes brought about by or in college students in recent years have had an increasingly direct effect on society. For example, the social protests of the 1960's, which many would claim resulted in a more concerned and a better society, were spurred in large part by college students who took action at that time for what they believed to be of benefit to society.

A major hindrance to the use of the "benefits pyramid" criterion is that hardly any empirical research other than in the economics area has related student benefits to the other two levels of benefits. One of the reasons for the lack of research, in addition to the research problems associated with measuring effects on students (interaction and other confounding effects, dropout effects, natural maturation, extra-environmental effects, masking effects, unreliability of measures, ceiling and floor effects, regression effects, abstractness of constructs, etc.), is that it is extremely difficult to control adequately for differences in post-college experiences. It is always possible that postgraduate and social outcomes noted are in reality the result of postgraduate experiences rather than the experiences obtained as a result of college attendance. Such a problem is no excuse, however, for the notable lack of research in this area. Furthermore, theory, logic, subjective self-reporting and informal observation can provide some useful input for the operation of this priority-setting criterion.

Documented Current Benefits as a Criterion

If it can be shown empirically that higher education has a certain impact on specific campuses or through particular programs on these campuses that doesn't occur on other campuses, we may be able to produce such an impact if desirable and if we are willing to provide the needed conditions to precipitate the benefit. There may be changes that would make the impact even greater, but at least we would know that such an impact is possible as a condition of higher education.

In this age of accountability, documentary evidence as a criterion for ordering priorities of higher education is a necessity. Years may pass before empirical acknowledgment and measurement are possible

for some effects commonly accepted as important benefits of a college education. Yet, the pressure for continuing efforts to develop such measures will probably not abate despite bleak forecasts of success in this area. Attempts to improve on present measurement instruments and techniques undoubtedly will continue. No matter what the hypothesized benefit, student and alumni self-reporting and observations by other concerned persons can be utilized. In this regard, more colleges should be making use of effective self-reporting and observation techniques for gathering data. Such data are the only possible empirical evidence a college can currently gather to examine whether it is providing certain benefits that are not yet measurable. Furthermore, such data are useful in a supplementary way for benefits that *can* currently be measured.

A number of reviews of the research literature on college outcomes have appeared during the last several years (Axelrod et al., 1969; Feldman and Newcomb 1969; Freedman 1967; Gurin 1971; Hausman 1972; Kenison and Gerxon 1972; Lenning and Johnson 1972; Solmon 1973; Solmon and Taubman 1973; Strumpel 1971; Walizer and Herriott 1971; Withey 1971b). General findings across colleges and types of students have been that students tend to *decrease* in religious interests, authoritarianism, dogmatism, stereotyped thinking, and conventional attitudes as a result of the college experience; and that they tend to *increase* in sophistication, complexity, flexibility, independence, liberalism, relativism, tolerance, rationality, open-mindedness, sensitivity to aesthetic experiences, and aesthetic and cultural values. (These impacts seem to survive after graduation in most cases, and a leveling off generally occurs starting with graduation.) Having attended college also seems to have postgraduate effects in the following areas: occupational orientations, memberships in organizations, political involvement and leadership, utilization of health and insurance services, size of family, attitudes toward their children, educational achievements of children, introspectiveness and sense of well-being, and financial income (which in turn has been shown to affect gross national product and society's standard of living).

Walizer and Herriott (1971) summed up the research on college outcomes by saying:

> The evidence seems conclusive that the college experience develops in the technical stratum of individuals those personal system characteristics indicative of what we have identified as competence in a modern, learning society (p. 6).

Conversely, the oldest review in the group (Freedman 1967) con-

cluded that little impact on students was noted, although it was enough to greatly affect American society:

> While the impact of the college experience on an individual student is not likely to be large, higher education does exert a profound influence on American life. Large scale social events or social movements are based on slight shifts of attitude or opinion in individuals (p. vi).

Care must be taken in interpreting general findings like those above. Different students change different amounts, and a number are usually going in directions opposite to the trend. Furthermore, interactions among different students and campus environments could result in different effects. The differential effects of specific environments on specific student types needs to be emphasized more in the research of the future. It is encouraging that recently there have been increasing numbers of attempts to show empirically that specific college benefits are occurring in particular institutions and programs.

Another problem of interpretation was well illustrated by Sanford (1968):

> At a minimum, assimilation of the values of a college culture may involve little more than a shift of adolescent loyalty to a new and larger group. Often there is merely an exchange of traditional values for prevailing ones, conscience thus changing in content but not necessarily in structure nor in its connections with the rest of the personality. We noticed at Vassar that if, after sharing in the culture of the college, a graduate married a man who shared her outlook, she retained the social responsibility developed earlier. If, on the other hand, her marriage meant moving into a community with values quite different from Vassar's, she was more likely to fall back on the sort of values she had learned before going to college (p. 75).

There are a variety of research methods and techniques for overcoming problems in the measurement and evaluation of college benefits. Anyone desiring more information on this topic should see Astin (1970a; 1970b), Feldman (1969, 1970, 1972), Feldman and Newcomb (1969), R. T. Hartnett (1971), Lenning (1973), and Withey 1971a).

Documented Potential Benefits as a Criterion

Experimental colleges and experimental programs have existed for a long time, but interest in them has increased during the last few years (Berte 1972). Such nontraditional and innovative institutions permit the tryout of new methodologies, new materials, and new environments. Some special needs for innovation were outlined by the

charges against American Higher Education leveled by the Hazen Foundation Committee on the Student in Higher Education (Kauffman 1968, pp. 13-15).

Since experimental programs are by their very nature new approaches in creating college impact, they have the potential to provide evidence that desirable benefits not represented in current research literature might occur if certain changes are made in more traditional institutions and programs. In traditional colleges that are already experiencing specific benefit impacts, such experimental programs might suggest ways to increase that impact.

Sanford (1967) presented a vivid example of what innovative methodologies and programs might be able to accomplish:

> . . . we were struck by the relatively high level of instability or "upsetness" of the seniors, who were examined in the spring just before graduation. Shocked out of their comfortable adjustments to college, they were now focused upon the outside world, with its unknown demands, and upon the need to make decisions and commit themselves—often for the first time—in ways that seemed irreversible. Under this stress, they seemed to us unusually educable, open to knowledge of the world and of themselves. Educators at Bowdoin College were so struck by these observations that they started a whole new plan of general education for seniors, designed to take advantage of this special openness to learning. In our own further work in undergraduate education, we have asked whether this heightened educability could not be induced earlier than the senior year (p. 186).

Case descriptions of innovative institutions and programs abound throughout the literature of higher education. Examples are provided by Berte (1972) and Lichtman (1971). A common problem, however, which hinders the maximum development of the programs and hinders the generation of useful documentation for officials at that college and for other institutions, is the lack of continual, ongoing, formal evaluation programs. The seriousness of such an omission is well illustrated in the case study provided by Suczek (1972).

Evaluation research is an important part of efforts to develop innovative procedures, programs, and methodologies, and equally necessary is a theoretical framework:

> In order to plan an educational program for encouraging change, we must know more about the entering student and about the factors in the college environment that can influence him. Then we must have a theory which relates all these factors. Once the program is set up, we must be able to measure various changes in individual students (Sanford 1968, p. 19).

> Let us restate our argument briefly. Planning of the total educational environment must be guided by a theoretical framework. The personality theory we have presented in this chapter is an essential element of this framework. To proceed without it is like embarking on a voyage without a compass; and education is the greatest—and most dangerous—of all voyages (Axelrod et al., 1969, p. 2[illegible]).

Conceptual works that illustrate the directions we need to go in theory development for college effects have been provided by Perry (1970) and Walsh (1973). Comprehensive theoretical models are needed that explain the different kinds of college impacts, but little has been done in this area.

Another type of documented evidence that might suggest possible benefits if changes were made is emphasized in a comprehensive review of literature on nonintellective correlates of college success (Lenning et al., forthcoming). The authors suggest if certain pre-college experiences or particular student background characteristics are found to be related to the desired criterion of college success, analysis of these relationships may promote new ways that colleges could help students to improve who lack that college success variable. For example, if students with high family emotional support experience one type of college success more than do students with low family emotional support, college officials could make special arrangements to provide substitute emotional support to those students for whom it has not been supplied.

The "Unique Institution" Criterion

Jacob, in his noted study on college effects during the late 1950's (1957), concluded that colleges generally had little or no effects on their students. However, he did comment that there were a few "high potency" colleges that seemed to be having significant impact. Undoubtedly there were special factors at those few unique colleges that were conducive to student change.

A primary concern of the Newman Task Force (Newman 1971) was that we must reverse the trend toward homogeneity of institutions in the U. S. Whether or not a private institution prospers and continues to exist may be determined in large part by how unique it is and how unique its offerings are to prospective students. Continually trying to emulate a public university or other private colleges in a given area could easily sound the death knell for any particular private college. In fact, the Danforth Foundation has concluded that a private college today does not deserve to exist unless it is truly unique in certain respects (Danforth Foundation 1969):

> . . . in the years ahead the private college of limited resources which deserves to continue must be able to make a case for its existence by (a) serving a region and a clientele which would not be served were the college no longer to exist and (b) using the best possible policies and practices of management (p. 1).

If two proposed objectives for an institution are of equal weight, the one adding the most to the uniqueness of the institution should be rated higher. The decision may be to emphasize both goals, but the main effort should be to emphasize the goal that will contribute the most uniqueness.

There are several ways particular institutional goals could contribute to an institution's uniqueness. The goal itself may be unique, or a goal may appeal to a certain type of student the college desires to attract. Even if the goal itself is not unique, it may lend itself to methodologies or programs appropriately unique for that institution and will build on the institution's strength. It is commonly acknowledged that goals can be reached in different ways; therefore, if an institution can create unique methods or programs to meet the goal and if the goal greatly appeals to students, it should be given priority. Differentially relevant goal statements connected with unique student populations to be served and unique programs and methodologies should logically result in unique institutions.

Administrators' knowledge of competing institutions, their own creativity, and stimulation obtained from reports and studies of experimental programs and methodologies will provide the basis for rating various goals according to the "uniqueness" criterion. Higher education in the past has been noted for being traditionalist, since faculty, alumni, and other concerned publics of the college often resist marked change. Therefore, if innovations are to succeed, it will be important for the college officials to develop an effective promotional campaign well grounded on principles and documentary evidence to appeal to those publics.

The "Consensus" Criterion: Expert Opinion, Logic, and Expressed Needs

Rather than higher education bringing about reforms in society (a purpose envisioned by many educators), higher education has tended to become stagnant until forced to change or reform by opinions outside the institution. The recent four-year follow-up survey of college students conducted by the American Council on Education (Bayer, Royer, Webb 1973) has the potential for bringing about the next large-scale change in the objectives for institutions throughout the

country. An overwhelming majority of the students surveyed appeared to condemn colleges for not putting enough emphasis on helping them to develop as whole persons, and they expressed a strong desire for such aid.

Expert opinion and public opinion have brought about much change in higher education emphases over the years. Certainly a college is wise to consider testimony (opinions and theoretical formulations) made by experts in the field, which is typically based on broad experience and an intimate knowledge of the literature. Such opinions may be obtained from speeches, books, journal articles, or by hiring such people as consultants.

The college officials' own logic and their in-depth knowledge of the local college and its various constituents, its overall philosophy, and its capabilities constitute the second important consideration for this criterion. No matter how appealing a proposed program might be, if it is so costly that an institution's resources will be overtaxed, logic will prevail. Included in the logic of local officials should be the priorities or reasons suggested by the four criteria previously discussed.

The third consideration consists of the expressed needs and opinions of the college's constituents. These groups are diverse and have vested interests in the college and its goals and it is important that the college trustees and the college officials listen to them. If there seems to be much consensus among students, faculty, alumni, parents, or the local community, strong pressures will mount. Even if such public opinion is based solely on emotion and the college officials or trustees have factual evidence to the contrary, the logic of the situation may force the officials to concede the point.

Usually such consensus among all of an institution's publics will not exist. Not only will there usually be serious disagreements among and within a college's faculty and lay publics on different institutional goals, but also there are wide disagreements among the experts in higher education. In this regard, there needs to be more consensus among the experts if the lay public and college officials are to receive any real guidance concerning meaningful college objectives.

An iterating survey-feedback technique called the Focus Delphi has been developed to help groups reach a consensus and some people see this as an important tool for ordering priorities in the area of college objectives (Hudspeth 1970; Judd 1972; Kohler and Pangallo 1972; Parden 1972; Uhl 1971; Weaver 1971). The technique was used at the Educational Testing Service to develop its *Institutional Goals Inventory* Uhl 1971, pp. 6-7).

The Focus Delphi rests on the assumption that often more than the presentation of evidence and ensuing discussions will be required to arrive at a consensus. After the initial presentation of evidence and rationale, the constitutents are polled. The results of the poll are communicated to the constituents after which another poll is taken. This procedure is repeated for a specified number of times or until a consensus is achieved.

Part of this effort should be to get good feedback from all of the institution's constituent groups that also will be appreciated by them and place a positive image of the institution in their minds. The remainder of the effort should be devoted to keeping constituents informed and motivating them to be supporters of the institution's goals, programs, and policies.

Conclusion

Among the many concerns of every collegiate institution, there should be two fundamentally overriding questions, which also should be the crucial concerns for higher education at the state and national levels: (1) What are the appropriate objectives and priorities for this institution? and (2) How can we best achieve these objectives? The first question has been the major topic of this report and can be paraphrased as follows: What are the real benefits toward which our institution should be striving and which ones are the most important? The question of which are the most important will be discussed in this concluding chapter.

The situation during the last several years has in some respects been analogous to a ship adrift with an inoperable rudder; the problem is to find some way to repair the rudder before the ship founders on the shoals ahead. A report by Cheit (1973) indicated that "stop gap" measures have resulted in a fragile stability, and that long term measures are needed if the troubled colleges and universities in this country are to avoid the hazards of capsizing.

Much of the literature on higher education in the past has tended to extol the virtues of higher education and circumlocute rather than focus on specific outcomes. Furthermore, numerous people in higher education may have never really thought through the wide array of outcomes toward which institutions can strive and from which they must choose. Colleges must carefully pick and choose their objectives if they are to remain relevant and solvent. No one institution can hope to adequately achieve all the goals outlined here; the institution will be "spread too thin" if it does not concentrate its efforts on specific missions especially suitable for that institution.

The lack of emphasis on outcomes has not been limited only to post-secondary education, but also has been noted at the elementary and secondary level. For example, Goodman in his study focused on all three levels of education and reported that

> A very limited amount of research and writing that deals specifically with educational outputs is available. While there is evidence that the subject has been on the minds of educators at least from the beginning of this century, no substantial body of theory of end products, or their influences upon individuals and society, has been formulated for the learning enterprise to date. In fact, discussion of educational output appears only sporadically in the literature, with much of what has been

> done in the field coming after 1950. When the subject is approached by serious educational thinkers and writers, their comments often take form as brief mention, almost as afterthought (Goodman 1971, p. 153).

Goodman's study is one of the few that has attempted to produce an in-depth analysis of the identification of educational outcomes and their classification. Goodman favors a dimensions approach for classifying and studying educational outcomes. Each outcomes construct can be located. The dimensions suggested by Goodman include the following: Instructional—noninstructional; observable behavioral change—change not observable in behavioral terms; economic—noneconomic; measurable—nonmeasureable; immediate—long-range; quantitative—qualitative; etc.

Other sources that discuss the formation and/or classification of educational objectives deserve mention. Panos (1967) comments that "determining the criteria relevant to the educational process is equivalent to defining objectives of higher education." Panos maintains that a classification scheme should be used to organize the global content of abstract statements of educational goals into research interest areas, after which criterion performances should be specified for particular studies being conducted. Baker and Brownell (1972) emphasized the importance of people from all parts of the institution and from the surrounding community being involved in goal formation and setting priorities; while Coleman (1972) stressed that the form of goal verb used could be the most significant factor in determining goal priorities. Other sources providing detailed discussions that relate to the formation, classification, and evaluation of educational objectives include Bloom et al. (1956); Enthoven (1970); Gagné (1967); Krathwohl, Bloom, Masia (1964); Mager (1962); Popham et al. (1969); and Tyler (1950).

Whatever methodologies are used in the formation, classification, and evaluation of educational goals, the following idea expressed by Katz and associates (1968) should be considered:

> We need to go beyond surface meanings. Definitions of the goals of education that list the development of character, or the production of gentlemen or "well rounded" individuals are often, in spite of their individualistic cast, definitions of desired socialization, aimed at the production of realiable and predictable people for business and social purposes. Moreover, throughout history, schools and teachers have served not just to educate people, but also to control them (p. 418).

Although much of what has been said here is applicable to higher education planning at the federal and state level, the focus throughout has been on the local institution. The suggestions offered supplement

the recommendations provided to the federal government by the first three follow-up papers developed by the Newman Task Force on Higher Education (Newman 1973a,b,c), and there is little if any overlap. Moreover, like the Task Force papers, possible solutions have been suggested to the benefit crisis that should be both useful and realistic, and should provide a framework for administrators in setting priorities and implementing them.

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Appendix A: The Clapp Report (1946)

I. Intellectual Attainments
   1. Is able to express himself effectively:
      a. in written English (42, 22, 0) *
      b. in public speaking (37, 5, 2)
      c. in oral conversation (29, 9, 8)
   2. Is acquainted with basic facts, principles, theories, and techniques in certain areas of the culture of the race:
      a. biological sciences (38, 5, 4)
      b. social sciences:
         (1) history (43, 15, 0)
         (2) economics (39, 3, 4)
         (3) sociology (39, 6, 4)
      c. physical sciences (41, 7, 0)
      d. mathematics (38, 5, 3)
      e. English literature (38, 12, 5)
      f. American literature (39, 6, 4)
      g. literature from other nations (29, 4, 8)
      h. philosophy (34, 17, 8)
      i. classical languages (26, 4, 8)
      j. modern languages (38, 5, 3)
   3. Has a specialized knowledge of some one of the above culture areas, apart from vocational requirements (major study) (34, 20, 6)
   4. Has ability to utilize library facilities efficiently (37, 11, 4)
   5. Demonstrates ability in rigorous scholarship (35, 12, 3)
   6. Gives evidence of intellectual integrity (40, 31, 1)
   7. Understands the significance of knowledge organized as exact science (40, 17, 3)
   8. Has developed the intellectual qualities necessary for leadership:
      a. initiative (35, 16, 3)
      b. self-confidence (36, 18, 2)

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*The numbers in parentheses represent, respectively, the number of schools accepting the objective, the number of schools who view it as a major objective, and the number of schools that did not accept the objective at the time of the study but intended to sometime in the future.

c. resourcefulness (37, 20, 1)
d. progressiveness (34, 14, 4)

9. Has learned to think clearly and to detect logical fallacies (40, 30, 3)
10. Has developed the scientific way of thinking (preciseness, objectivity, impartiality) (42, 26, 1)
11. Has developed imaginativeness and resourcefulness as means to creative thinking (41, 14, 0)
12. Has developed a variety of intellectual interests (39, 18, 5)
13. Is open-minded in his consideration of controversial questions (40, 25, 3)
14. Has developed intellectual curiosity which leads him to go beyond mere requirements (40, 25, 4)

II. Health

15. Is physically healthy (35, 9, 4)
16. Knows how to play numerous games, including some useful in post-college life (31, 0, 4)
17. Is intelligent with regard to kinds and amounts of food and drink and the laws governing their use (30, 7, 6)
18. Is able to avail himself of the services of experts for the maintenance of health (29, 6, 8)
19. Practices and promotes the observance of proper habits and regulations with respect to sanitation (28, 12, 6)
20. Has learned to conserve energy and avoid overtaxing the physical organism (28, 4, 8)
21. Is able to administer first aid (23, 1, 12)
22. Is physically toughened and able to undergo physical hardships (13, 0, 6)

III. Personality Adjustment

23. Knows how to evaluate himself and others properly (37, 15, 5)
24. Is able to adapt himself to new circumstances (36, 14, 4)
25. Has the ability to make decisions and to abide by the consequences (36, 18, 3)
27. Has the disposition and ability to conform to convention when it is fitting to do so (34, 12, 4)
28. Has poise in dealing with individuals and groups (34, 13, 7)
29. Knows how to perform social courtesies (33, 11, 5)
30. Engages in recreational activities or hobbies of a type different from his vocation (27, 2, 10)
31. Has numerous friends and is an accepted member of one or more social groups (26, 5, 10)

32. Is tactful in his dealings with people (26, 9, 7)
33. Is cheerful and pleasant (18, 3, 9)

IV. General Ethical Character

34. Has developed a socially acceptable and personally satisfactory philosophy of life or system of values (38, 34, 5)
35. Accepts and lives according to certain ethical and moral concepts:
    a. Honesty in the performance of school work (36, 30, 3)
    b. Honesty in financial dealings (37, 30, 1)
    c. Responsibility in the care of personal property of others (38, 25, 1)
    d. Responsibility in the care of public property (36, 22, 3)
    e. Chastity (34, 28, 2)
    f. Kindness, considerateness (34, 17, 2)
    g. Self-control (36, 20, 5)
    h. Respect for personality (36, 26, 2)
    i. Cooperativeness (36, 19, 5)
    j. Dependability (36, 25, 4)
36. Is free from narrow partisan bias and tolerant of the rights of others to their opinions and actions (36, 24, 5)
37. Recognizes a social obligation to produce and to work for the general welfare (36, 25, 3)

V. Christian Character

38. Attempts to apply Christian principles to the solution of social and economic problems (27, 24, 2)
39. Attempts to solve personal problems in the light of Christian principles (24, 21, 2)
40. Commits himself to a personal decision of loyalty to Christ or to Christian principles (22, 18, 2)
41. Is religiously motivated to live according to the concepts of the good life as learned from various sources (22, 19, 1)
42. Accepts responsibility for the promulgation and spread of the Christian gospel (20, 12, 3)
43. On religious grounds, practices regular church attendance (20, 13, 2)
44. On religious grounds, practices observance of a weekly sabbath (17, 11, 3)
45. On religious grounds, practices simplicity in dress and living (12, 3, 3)
46. On religious grounds, practices abstinence from the use of intoxicating liquor (12, 8, 1)

47. Accepts the doctrinal positions officially held by the school or its supporting religious group (11, 9, 1)
48. On religious grounds, practices daily or regular Bible reading (11, 6, 2)
49. Has a religious experience of conversion (8, 7, 2)
50. On religious grounds, practices abstinence from the use of tobacco (6, 5, 2)
51. Undergoes baptism or some other ritualistic observance (5, 2, 1)
52. On religious grounds, practices abstinence from social dancing (5, 4, 0)
53. On religious grounds, practices abstinence from attendance at theaters, movies, etc. (5, 4, 0)
54. On religious grounds, practices conscientious objection to bearing arms (3, 0, 0)

VI. Aesthetic Interests

55. Is acquainted with and appreciates the beautiful in poetry and in prose literature (36, 8, 4)
56. Has a sense of what is pleasing and in good taste in dress, manners, and speech (33, 8, 6)
57. Has learned to appreciate and enjoy good music (32, 3, 8)
58. Has the knowledge and attitudes which enable him to enjoy the world of nature (28, 2, 9)
59. Is acquainted with masterpieces of painting and sculpture (27, 2, 9)
60. Is able to take part in the creation of vocal or instrumental music, alone or in a group (21, 1, 10)
61. Is able to participate in dramatic productions (21, 0, 11)
62. Is able to engage creatively in drawing, painting, sculpture, or writing (20, 0, 15)

VII. Citizenship Responsibilities

63. Has a philosophically grounded view of citizenship—appreciates the organized state as a social institution (41, 23, 1)
64. Has an appreciation of the world-wide effects of this nation's policies (38, 11, 5)
65. Makes proper use of the sources of political information (newspapers, magazines, radio, etc.) (37, 11, 6)
66. Is willing to abide by the decisions of duly constituted authorities (37, 20, 4)
67. Respects and seeks to protect the rights of political, racial, and cultural minorities (37, 20, 5)

68. Maintains the principle of free speech (36, 20, 4)
69. Has philosophically based opinions as to the place of force, including war, in the settlement of controversies (35, 13, 6)
70. Respects the natural resources of the country and promotes their conservation and wise use (35, 13, 5)
71. Has knowledge and philosophically based opinions on unionism and collective bargaining (35, 12, 6)
72. Exercises his right of franchise; registers and votes at each election (34, 13, 8)
73. Is capable of exercising his rights as a citizen to work toward new and different laws and decisions (34, 14, 6)
74. Views democracy as equality of opportunity to try rather than as equality of ability to achieve (33, 15, 7)
75. Accepts civic responsibility in matters of community welfare: jury duty, voluntary service in war and peace, Red Cross, etc. (31, 15, 7)

VIII. Vocational and Professional Preparation

76. Has the requisite knowledge and understanding to enable him to choose a vocation in accordance with his abilities and aptitudes (39, 29, 0)
77. Seeks a socially useful as well as a remunerative occupation (36, 26, 5)
78. Is prepared to do general graduate work in liberal arts subjects (36, 11, 3)
79. Has received, as part of his B.A. or B.S. course, vocational or professional training adequate to permit immediate entrance into his vocation or profession (35, 20, 2)
80. Has received pre-professional training sufficient to permit him to enter graduate professional work in:
    a. Education (34, 17, 2)
    b. Medicine (23, 7, 4)
    c. Nursing (22, 9, 4)
    g. Religion or theology (22, 11,3)
    e. Engineering (18, 6, 5)
    f. Law (18, 5, 4)
    b. Pharmacy (17, 3, 6)
    h. Forestry (12, 3, 5)

IX. Preparation for Home Membership

81. Has received adequate instruction to facilitate mental and personality adjustments in marriage (27, 8, 7)

82. Views marriage as a permanent relationship and plans accordingly (27, 17, 5)
83. Knows how to maintain an attractive and well-organized home (26, 5, 7)
84. Is able to plan intelligently for children and to provide a wholesome environment for their physical, mental and social development (25, 8, 6)
85. Knows how to find help, through literature and counselors, in solving family problems as they arise (25, 5, 11)
86. Has the knowledge and attitudes to enable him to choose a mate wisely (23, 8, 11)
87. Knows how to budget his funds and gauge his purchasing power (21, 3, 12)
88. Knows how to buy wisely and secure quality in his purchases (21, 2, 12)
89. Has received adequate instruction to facilitate physical adjustments in marriage (20, 5, 11)
90. Is able to do home accounting: checkbook, budget, and income tax accounts (18, 2, 15)
91. Is able to adjust to the single life, if necessary or advisable (17, 4, 11)

Appendix B: Taxonomy of Educational Objectives (Bloom 1956; Krathwohl, Bloom and Masia 1964)

I. Cognitive Domain
  A. Knowledge
    1. Knowledge of Specifics
      a. Knowledge of Terminology
      b. Knowledge of Specific Facts
    2. Knowledge of Ways and Means of Dealing with Specifics
      a. Knowledge of Conventions
      b. Knowledge of Trends and Sequences
      c. Knowledge of Classifications and Categories
      d. Knowledge of Criteria
      e. Knowledge of Methodology
    3. Knowledge of the Universals and Abstractions in a Field
      a. Knowledge of Principles and Generalizations
      b. Knowledge of Theories and Structures
  B. Comprehension
    1. Translation
    2. Interpretation
    3. Extrapolation
  C. Application
  D. Analysis
    1. Analysis of Elements
    2. Analysis of Relationships
    3. Analysis of Organizational Principles
  E. Synthesis
    1. Production of a Unique Communication
    2. Production of a Plan or Proposed Set of Operations
    3. Derivation of a Set of Abstract Relations
  F. Evaluation
II. Affective Domain
  A. Receiving (Attending)
    1. Awareness
    2. Willingness to Receive
    3. Controlled or Selected Attention
  B. Responding
    1. Acquiescence in Responding

2. Willingness to Respond
3. Satisfaction in Response

C. Valuing
1. Acceptance of a Value
2. Preference for a Value
3. Commitment

D. Organization
1. Conceptualization of a Value
2. Organization of a Value System

E. Characterization by a Value or Value Complex
1. Generalized Set
2. Characterization

III. Psychomotor Domain

Appendix C: Survey of Educational Goals (Gross and Grambsch 1964)

	Perceived Rank	Preferred Rank
1. Produce a student who, whatever else may be done to him, has had his intellect cultivated to the maximum	14	3
2. Produce a well-rounded student, that is, one whose physical, social, moral, intellectual, and esthetic potentialities have all been cultivated	21	17
3. Make sure the student is permanently affected (in mind and spirit) by the great ideas of the great minds of history	30	15
4. Assist students to develop objectivity about themselves and their beliefs and hence examine those beliefs critically	23	8
5. Develop the inner character of students so that they can make sound, correct moral choices	38	12
6. Prepare students specifically for useful careers	13	32
7. Provide the student with skills, attitudes, contacts, and experiences which maximize the likelihood of his occupying a high status in life and a position of leadership in society	28	33
8. Train students in methods of scholarship and/or scientific research and/or creative endeavor	6	2
9. Make a good consumer of the student—a person who is elevated culturally, has good taste, and can make good consumer choices	47	45
10. Produce a student who is able to perform his citizenship responsibilities effectively	20	14
11. Provide special training for part-time adult students, through extension courses, special short courses, correspondence courses, etc.	37	38
12. Educate to his utmost capacities every high school graduate who meets basic legal requirements for admission	39	37

13. Accommodate only students of high potential in terms of the specific strengths and emphases of this university	40	39
14. Involve students in the government of the university	45	46
15. Emphasize undergraduate instruction even at the expense of the graduate program	44	44
16. Encourage students to go into graduate work	18	27
17. Provide a full round of student activities	27	43
18. Protect and facilitate the students' right to inquire into, investigate, and examine critically any idea or program that they might get interested in	17	10
19. Protect and facilitate the students' right to advocate direct action of a political or social kind and any attempts on their part to organize efforts to attain political or social goals	41	40

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